

Coordination and Communication Protocol for Naturally Ignited Fires

June 1, 2011

Objectives

The goal of this Coordination and Communication Protocol (Protocol) is to establish a framework that will be used to minimize smoke/emission impacts from all naturally ignited fires. This document provides a starting point for communication and coordination between Air Districts (Districts) and Land Management Agencies (LMAs) that utilize Naturally Ignited Fire. The document is based on Title 17 of the California Code of Regulations and on Federal Wildland Fire Management Policy. Districts and LMAs are encouraged to use this document as a starting point to cooperatively develop agreements based on local and regional strategic needs. Proper coordination and communication will ensure that public health and air quality issues are considered in fire planning and management. It is the intent of this protocol to build on the cooperation between the LMAs, the Air Resources Board (ARB) and Districts throughout California^[1]. A commitment from the LMAs to coordinate on all unplanned ignitions, including naturally ignited fires, is included as the attached Statement of Intent (Appendix A). It is not the intent for this protocol to replace existing agreements between LMAs and Districts, or impinge on existing district rules.

When available, the U.S. EPA Interim Air Quality Policy on Wildland and Prescribed Fires will be included as an appendix, including the sections pertaining to Exceptional Events criteria. Continued and improved work to capture data needed to process Exceptional Event documentation is one of the goals for future development of this protocol. Appendix G (Recommendations for future development), contains this and other suggestions for improvements to the communication process.

This protocol addresses a change in the interpretation of the Federal Wildland Fire Management Policy. As defined in "Guidance for Implementation of Federal Wildland Fire Management Policy, February 2009" (Appendix D). Wildland fire is used as a general term and can be categorized into: Wildfires (unplanned ignitions or prescribed fires that are declared to be wildfires), and Prescribed fires (planned ignitions).

The focus of this document is naturally ignited fires with the intent of clarifying their applicability to Title 17. This document is not intended to limit needed communication on human caused wildfires.

Because smoke does not recognize boundaries, it is necessary that LMA/Districts share appropriate information with other jurisdictions where impacts are possible or likely. A Smoke Management clearinghouse is necessary for this interaction to occur. The preferred modes of communication between the LMA and Districts are: the daily "1300"

^[1] An example of a local working document between LMA's and Districts is the SJVAPCD Unified Guidelines Document.

(1:00 PM) statewide smoke management conference call, the Prescribed Fire Information Reporting System, CANSAC/Blue Sky, or other methods agreed to by the LMA/Districts.

A naturally ignited fire managed for resource benefit is subject to Title 17^[2]. This is clear from Title 17 which states that prescribed fire includes naturally ignited fires managed for resource benefit, and from the February 2009 Guidance for Implementation of Federal Wildland Fire Policy which defines the use of wildland fire as the management of wildfire or prescribed fire to meet resources objectives specified in Land/Resource Management Plans.

This Protocol takes into consideration the resources, requirements, and goals of the LMAs and the Districts. Where possible, this Protocol seeks to follow established procedures, terminology, record keeping, and timelines.

The Protocol seeks to develop emission mitigation measures before smoke impacts become a concern. The Districts will provide information regarding air quality based trigger-points that should be used to implement smoke/emission mitigation measures. Trigger points/management action points should be determined by Districts and LMAs, and actions agreed upon as part of the protocol process (examples of trigger points/management action points are included in Potential Air Quality Trigger Points/Management Action Points, Appendix B). LMAs should plan mitigation efforts well in advance of their needed use with District cooperation. In order to ensure that emissions can be minimized prior to the occurrence of substantial smoke/emission impacts, actions need to be planned early in the naturally ignited fire management process.

The processes included in this Protocol provide a framework for the coordination process between the Districts and the LMAs. Once established based on local and regional needs and District rules, the protocol can be amended as needed by agreement between the Districts and the LMAs

Communication and Coordination Procedures

1) General and on-going planning and communication:

- A. LMAs should seek input from the appropriate Districts when amending their Resource Management Plans and their Fire Management Plans.
- B. LMAs should include maps of areas where natural ignitions may be managed on the annual District Burn Registrations. Previous fire history, fuel loading, sensitive receptors, and defensible boundaries may be included where known.
- C. Prior to each fire season, the LMAs and Districts should meet to discuss successes and shortfalls identified during the previous burn year and determine improvements that can be made to this Protocol.

^[2] Title 17 of the California Code of Regulations.

- D. As needed, LMAs and Districts should participate in the daily 1300 conference call (1-877-874-5440, Code 357238). This call is extremely useful for coordination, even between entities not directly affected by current fires.
- E. LMAs and Districts should work together to establish:
- Procedures for relaying fire information on a daily basis (or other agreed upon timeframe), such as projected size, acres per day, estimation of emissions, percent blackened, complaints, etc.
 - Criteria for managing naturally ignited fires in progress based on existing and projected air quality conditions
 - Fire and emission reporting criteria and timelines
 - Smoke mitigation measures to minimize smoke/emission impacts from active naturally ignited fires
 - Coordinated outreach opportunities and methods
 - Other needed resources and tools
- F. Districts should coordinate with each other to determine what information should be shared, and when, in order for the authorizing district to appropriately consider regional and cross-district air quality impacts of all active fires, including naturally ignited fires.

2) Confirmation of Ignition

Summary of Section:

This section represents fire discovery, initial assessment, and location information.

Notifications and Coordination Efforts:

In a cooperative, cumulative effort between all LMAs in a region, LMAs should communicate with each other to ensure that air quality with respect to public exposure and opportunities to reduce emissions/impacts are implemented in fire management strategies.

- LMAs should evaluate fire danger and behavior within their jurisdiction. This should be done using specific information from Geographic Area Coordination Centers Predictive Services and unit fire danger programs.
- For all natural ignitions, the LMA will notify the appropriate District within 24 hours of ignition, or according to previously made agreements.
- This notification should include the total number of confirmed ignitions, fire location, approximate size, and potential for growth.
- Additional work to develop a real-time prioritization network between LMAs will be developed as a project in the future (see Appendix G).

3) Management Coordination Activities: Fires \leq 10 Acres

Summary of Section:

This section represents the management activities for fires that are not expected to exceed 10 acres in size.

Notifications and Coordination Efforts:

Everything in Section 2) "Notifications and Coordination Efforts" and:

- Upon LMA request the District or the ARB should provide, air quality or meteorological forecasts to assist the LMA in their decision making process.
- The responsible District should coordinate with other Districts on a daily/weekly basis, or on an otherwise agreed upon timeline, to discuss naturally ignited fires.

The LMA should check with the authorizing District to determine what SMP and reporting requirements are applicable in accordance with District rule or policy.

Available Reporting and Record Keeping Tools:

- Wildland Fire Emission Spreadsheet
- Wildfire Smoke Management Summary Form
- Prescribed Fire Information Reporting System
- Wildland Fire Decision Support System (WFDSS) documentation

Links to these tools are available from ARB.

4) Management Coordination Activities: Fires $>$ 10 Acres

Summary of Section:

This section represents the management activities for fires that are expected to exceed 10 acres in size.

Notifications and Coordination Efforts:

Everything in Section 3) "Notifications and Coordination Efforts" and:

- Because this is the stage when wildfires are most easily contained or suppressed, careful consideration of predicted air quality trends over the

estimated duration of the wildfire should be made to determine if continuance of the wildfire is advisable.

- Upon notification of the District and coordination with neighboring Districts, the District, or ARB, may provide a dispersion forecast based on current and projected air quality conditions.
- Per Title 17, LMA will submit an SMP to the District for approval within 72 hours of the start of a fire expected to exceed 10 acres in size. Discussion of triggers and mitigations should begin early on any fire that is expected to grow, and be incorporated into WFDSS. As part of ongoing discussion, the topic of actions taken for a “no-go” declaration are included in Appendix G.
- LMA to notify the District of the growth of the naturally ignited fire beyond 100 acres and 250 acres within 24 hours.
- As a component of the LMA periodic fire assessment/revalidation effort, the LMA and the District should consider revalidation of the SMP. This consideration should occur at least weekly, or on an otherwise agreed upon timeline, while the naturally ignited fire is active. Should a plan not be revalidated, LMA and District should work to agree to on appropriate actions.
- As needed, the District should notify adjacent states as appropriate that a naturally ignited fire is in progress. This notification should include anticipated smoke/emission impacts on Nevada and/or Oregon. The LMAs should also contact the State of Nevada, Arizona and/or Oregon as needed (see California Smoke Contacts, Appendix F).

Available Reporting and Record Keeping Tools:

Everything in Section 3) "Available Reporting and Record Keeping Tools" and:

- Smoke Management Plan and/or WFDSS document (as agreed by LMA and district).

Smoke/Emission Mitigation Efforts:

- A SMP is required for all natural ignitions expected to be greater than 10 acres in size. Through the SMP, the Districts and LMAs should collaboratively develop trigger points/management action points upon which emission mitigation measures -may be taken. These trigger points/management action points should be based on current and forecasted air quality, documented complaints, and smoke/emission impacts. See Potential Air Quality Trigger Points/Management Action Points, (Appendix B).
- A poor dispersion forecast suggests that the LMA begin management actions to minimize smoke emissions/impacts.
- When planning for potential naturally ignited fire growth, LMA should include considerations for future projected smoke/emission impacts.
- LMA should describe what action can/will be taken to minimize or prevent smoke/emission impacts prior to their occurrence. (Examples: Preparation to redirect into an area with less fuel loading, check lines could be constructed to isolate pockets with high concentrations of accumulated fuels, etc.).

- LMA should describe what actions will be taken when smoke/emission impacts occur. (Example: Active fire redirection to previously identified areas, active fire suppression, etc.).
- LMA should consider implementing emission mitigation measures when trigger points/management action points identified in the SMP/WFDSS are reached.

Conflict Resolution:

All effort should be made to resolve issues at the staff level such as during the 1300 call. However, issues may arise that cannot be resolved by staff. When such an issue arises, LMA and District staff should bring it to their respective management, who will help identify a solution. ARB and U.S. EPA are available to participate in this discussion at the request of the LMA or the District (see Appendix Contacts). This is an area where future protocol development may be useful and is included in the Recommendations to the ALM (Appendix G).

5) Post Naturally Ignited Fire Reporting and Record Keeping:

LMAs should prepare a post fire season naturally ignited fire summary. This summary should include the number of blackened acres per fire, the start and end dates of each naturally ignited fire, the number of complaints received by the LMA, and the total emissions from each naturally ignited fire. The LMA should submit this summary to the Districts.

6) Public Education Efforts:

LMAs, Districts, and Public Health Officials should coordinate efforts to develop a consistent public message regarding naturally ignited fires. This message should be included in the naturally ignited fire related public information that the LMAs and the Districts produce. LMAs and Districts should work together to identify communities, groups, and organizations that should receive special outreach attention. This is an area where future protocol development may be useful and is included in the Recommendations to the ALM (Appendix G).

Definitions:

Emission Mitigation Measures are actions taken to minimize or stop the emissions associated with a naturally ignited fire. These actions can be fire specific (i.e. fire redirection towards areas with lower fuel densities, holding actions, fire suppression, etc.) or non-fire specific (i.e. LMA electing to forego, or District not approving).

Go/No Go Decision is the initial Go/No Go decision, and subsequent revalidation of the decision, to manage a naturally ignited fire for multiple objectives which may include resource benefit.

- A "Go" decision means that the naturally ignited fire can be managed.
- A "No Go" decision means the LMA must take appropriate actions to manage the ignition as an unwanted wildland fire, and implement strategies to limit or eliminate adverse impacts. A no-go decision does not mean that the fire must be extinguished, but that the fire can not be considered as a prescribed fire.
- Per Title 17, the initial decision for a fire on a no-burn day should be "No Go" unless authorized by district or ARB.

Naturally Ignited Fire - The initiation of a Wildland fire by Lightning or a Volcano.

Smoke/Emission Impacts - Smoke/emission impacts from fires include, but are not limited to: exacerbation of pre-existing health problems; effects on individual and community health (including burning eyes, runny noses, and aggravated respiratory tracts); contribution to levels of air pollution; nuisances to residents and businesses; damage to property; disruption of people's lifestyles; and reduced visibility.

Smoke Management Plan (SMP) - A document for each fire over 10 acres in size prepared by land managers or fire managers that provides the information and procedures required in Title 17 of the CCR, § 80160 and applicable District rules.

District Approval – is authorization/approval of the SMP as provided by LMA for management of a naturally ignited fire for multiple objectives which may include resource benefit.

District Disapproval – means the SMP is not approved as written and requires further mitigation and/or coordination efforts between the LMA and District.

Title 17 - The California Smoke Management Regulation for Agricultural and Prescribed Burning. Provides direction to air pollution control and air quality management districts (Districts) in the regulation and control of Agricultural and Prescribed burning.

Trigger Points/Management Action Points (*This is the definition used for Wildland Fires.*)- Either geographical points, specific points in time, measured pollutant concentrations, or any other determination where an escalation or alteration of management actions is warranted.

Use of Wildland Fire is the management of either naturally ignited fire or prescribed fire to meet resource objectives specified in Land/Resource Management Plans.

Wildland Fire (WF) – a general term describing any non-structure fire that occurs in the wildland. Wildland fires are described in two distinct types:

- a. Wildfires – unplanned ignitions or prescribed fires that are declared wildfires.
- b. Planned Fire – planned ignitions.

A wildland fire may be concurrently managed for one or more objectives and objectives can change as the fire spreads across the landscape. Objectives are affected by changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives. (*Source: federal Wildland and Prescribed Fire Management Policy*)

Appendices:

- A. Statement of Intent
- B. Potential Air Quality Trigger Points/Management Action Points for Managing Smoke and Emissions from Naturally Ignited Fires
- C. Potential Mitigation Measures for Managing Smoke and Emissions from Naturally Ignited Fires
- D. Revised exceptional event guidelines from EPA (when available)
- E. Prescribed Burning and Smoke Management Fact Sheet
- F. California Smoke Contacts as of (3-7-2011)
- G. Recommendations for further development.